

Maryland.

REPORT
OF THE
STATE DEPARTMENT
OF
FORESTRY

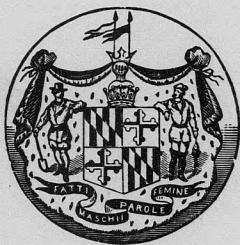
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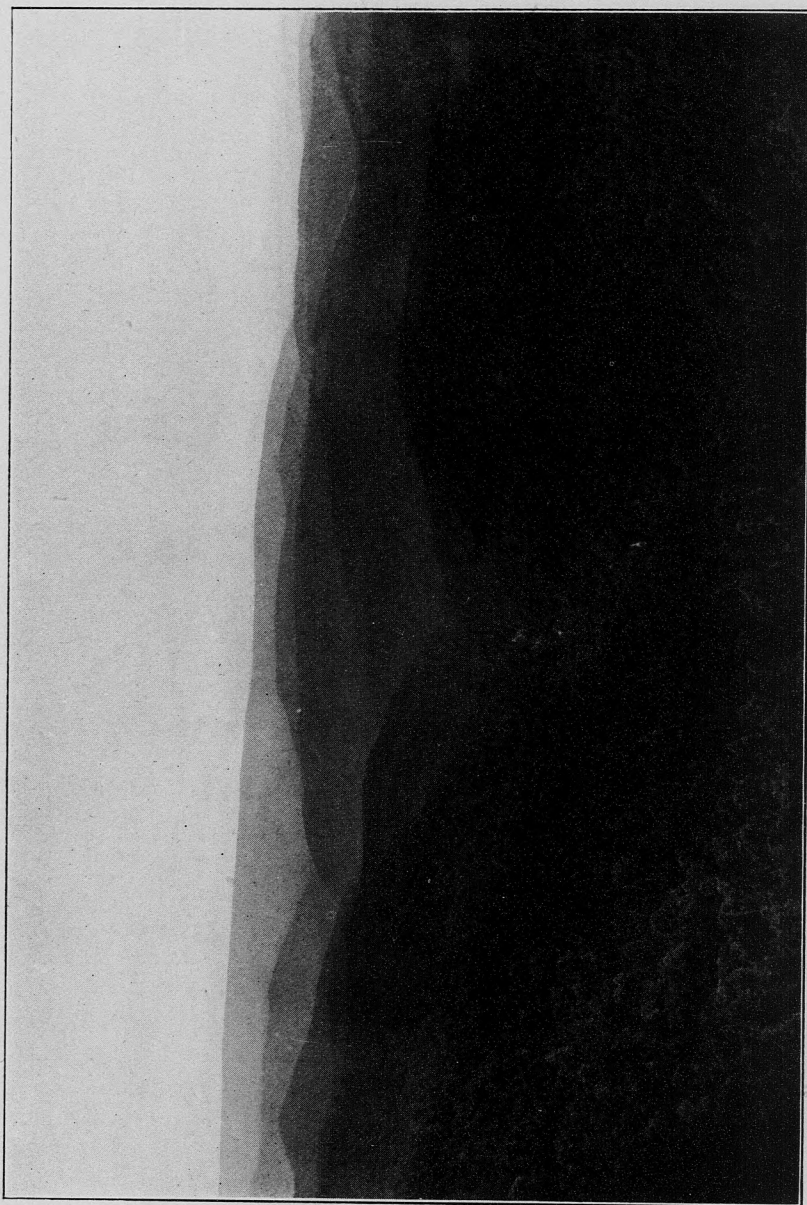
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MOUNTAIN FORESTS OF WESTERN MARYLAND

There are 500,000 acres of such land, much of which should be in State Forests.

INTRODUCTION

The activities of the Department of Forestry for the fiscal year, 1927, have followed much the same lines as in previous years. The State-wide protection of the two and one-quarter million acres of forest land from fires has been a chief concern. Much has been accomplished in this respect during the past year in better organization and better equipment for combating forest fires. This is reflected in the reduced size of fires that occur and the subsequent damage, which is the most reliable measure of effectiveness of a forest protection system.

The educational work of the preceding years, in bringing before the public through lectures and demonstrations the principles and practice of forestry, is making marked progress. An increasing number of woodland owners are putting forestry in practice in their own lands, through the service of the Department in providing expert advice and assistance in the handling of woodlots and timber tracts. The main purpose of the Department in its educational work to present to every citizen of the State the need of growing timber as a crop on our forest lands, and of conserving our forest resources, is each year coming nearer realization, with the result that the people of Maryland are becoming more forestry-minded and laying the groundwork for the rebuilding of the depleted and devastated forests of the State to meet our timber needs.

It is becoming more and more apparent, year by year, to the people of Maryland that the forest lands of the State must be developed to supply the timber needs of the next generation when the distant lumber supply from which we are now dependent is practically exhausted. To accomplish this three things are of urgent importance: (1) Adequate protection of our forests from fire. (2) Purchase of large areas of non-productive mountain forest land and putting it to work growing timber for the benefit of the State. (3) Reforesting of 250,000 acres of waste land.



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In the first of these objectives—Forest Protection—considerable progress has been made toward accomplishment, though much is to be done. In the second—Acquisition of State Forests—scarcely a beginning has been made, and that is conceived to be the most important work ahead for the next ten years. In the third—Reforestation—only a beginning has been made, but the State Forest Nursery is each year increasing the output of forest planting stock in an attempt to keep up with the rapidly increasing demand, so that this objective is progressing more rapidly than the Department of Forestry is able with its limited means to carry on satisfactorily. The forestry program must be speeded up tremendously to meet the forest needs of the State.

The main activities for the year, 1927, set forth in the following pages, show substantial progress.

ASSISTANCE TO WOODLAND OWNERS.

Less than 4 per cent. of the woodlands in Maryland are in public ownership, so that the practice of forestry rests almost entirely with the private owners and must therefore come through their action. It has been the policy of the Department, from the very beginning, to offer every possible assistance and encouragement to private owners in bringing about better forest management on their lands, and the fact that the assistance of the Forestry Department is sought to an increasing extent each year indicates the value and appreciation of that service.

The purpose is to make all forest lands of the State fully productive, hence, profitable to both the owner and the community. The plan is, first, upon the request of any land-owner, to have a forest expert make an examination of the woodland with the owner or his agent present. The problems involved, principles to be followed, and the results to be obtained are fully discussed on the ground, and later submitted to the owner in the form of a written report with recommendations. During the past year 55 such examinations were made, covering 18,726 acres of woodland in twenty-one different counties. Frequently the examination shows a sufficient amount of mature timber to justify a logging operation, and the owner may wish to realize on his timber value; or an improvement cutting may be required. In such cases the Forestry Department will furnish a forester to go over the tract carefully, and with a couple of assistants furnished by the owner will mark and measure the trees to be cut, insuring a proper selective cutting with the idea of realizing on the merchantable timber, but leaving the woodland in a productive condition after cutting. The result is putting forestry in practice on the woodlands of the private owner, each operation serving as an object lesson in the community. The cost of this work is borne, approximately, one-half by the owner, and one-half by the Forestry Department. During the past year there were ten of these selective markings, covering 465 acres in seven different counties.

In some cases the forester finds that a selective marking is not necessary, but that the purpose of forest management can be served

by adopting a minimum diameter limit for cutting, or restricting the operation to certain species. Where this plan is practicable, only an estimate of the amount of timber is required. One such estimate was made during the year, covering 1,318 acres of woodland. Another method of introducing better forestry practice is through demonstration thinnings, especially in immature stands of both hardwood and pine. A small area is selected, the forester marks the trees for thinning, explaining the principles involved and their application; then this sample thinning is used by the owner as a guide in applying the principle to the rest of his woodland. During the year three thinnings were made on $4\frac{1}{3}$ acres of woodland in three different counties.

In other cases the owner may be seeking information as to the proper use of waste land, and is interested in forest planting. Here again the Department of Forestry has rendered valuable assistance in examining such lands to determine their suitability for forest planting, the species of trees to be used, and the method of planting. During the year sixteen planting plans were prepared covering 501 acres of land, and detailed information given as to the planting stock to use, how it could be obtained, the approximate cost, planting methods, and probable results.

In the appendix of this report will be found a detailed list of the examinations, selective markings for selective cutting, estimates, thinnings, and planting plans.

In addition to this field inspection and demonstration work, information is given in hundreds of cases, through personal interviews and correspondence, on all forestry and shade tree subjects in which the individual is seeking help or advice. The aid and facilities of the Department of Forestry are being used to an increasing extent in what is believed to be a very helpful service.

STATE FORESTS

Skipnish	888				
Brier Ridge	931				
Herrington Manor	712				
Kindness	206				
State Forests.....	2,737	Acres	Garrett	County	
Auxiliary State Forests.....	600	"	"	"	"
	3,337	Acres	Garrett	County	

Fort Frederick State Forest 189 Acres Washington County

Patapsco State Forest.....	1,106	Acres	Howard-Balto.	Counties	
Auxiliary State Forests.....	1,300	"	"	"	"
	2,406	Acres	Howard-Balto.	Counties	

State Forests	4,032	Acres		
Auxiliary State Forests.....	1,900	"		

Total under State Control 5,932 Acres

GARRETT COUNTY.

The four Garrett County forests are located in the extreme western part of the State at an elevation of about 2,500 feet. They consist almost entirely of hardwoods; principally oak, chestnut and maple, with a number of other species in smaller proportion. The Herrington Manor forest contains about 300 acres of virgin timber, mostly white oak of large size and forming heavy stands. During the past year there have been no fires on the Garrett County Forest; in fact, the fire danger since these forests were acquired nearly twenty years ago has been almost negligible except in the small, detached Kindness Forest. A new telephone line from Herrington Manor to the lookout tower on Snaggy Mountain, some three miles away, has been built, thus giving a direct connection with the main telephone line taking the place of an old indirect line that has been

abandoned and furnishing added protection to the State Forests. Fire lines have been established, trails opened, campers accommodated and the forests maintained in a productive condition for timber production, watershed protection, and recreation. In addition to the 2,737 acres in the four Garrett County Forests, the use of an additional 600 acres at Swallow Falls, belonging to the Grand Lodge of Masons of Pennsylvania and West Virginia, is used by the Department of Forestry under a co-operative agreement and here designated as an auxiliary State Forest.

The chestnut blight, which has destroyed practically all of the chestnut timber in the eastern and southern parts of the State, is now doing its deadly work in the chestnut forests of Garrett County, with no hope of abatement. In another five years, at the present rate of progress of the disease which has proven irresistible, it does not appear likely that there will be any chestnut left in Maryland free from attack. The blight is now doing serious damage on the State Forests where this species is an important component, notably on the Skipnish and Brier Ridge Forests. The scarlet oak in the Garrett County Forests has for the past five years suffered from a fungus disease that has killed a large percentage of that species. This disease is known as the shoe-string fungus (*Armillaria mellea*), for which there is no practicable remedy.

The prevalence of these two diseases and the impossibility of checking them has changed management plans, calling for the cutting and salvaging of the chestnut and scarlet oak before they become a total loss. The material is too small for saw timber, and mine props are about the only merchantable product. Unfortunately, the long haul to the railroad, poor condition of the roads and prevailing low prices greatly limit profitable salvage operations.

FORT FREDERICK.

Fort Frederick is a point of great historical interest of the pre-Revolutionary days. The Fort, built in 1756, is still in a good state of preservation and visited by hundreds of tourists, campers and picnic parties. Several of the patriotic societies have become



Fig. 1—DESTRUCTIVE CUTTING OF TIMBER LEAVES WASTE LAND.



Fig. 2—CONSERVATIVE CUTTING PREPARES THE WAY FOR A GOOD SECOND CROP

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interested in Fort Frederick as an historical shrine and have shown their interest in ornamental tree planting. The Daughters of the American Revolution in 1924 planted 1,139 white pine trees in a grove to the north of the Fort—one tree for each member of the organization in the State.

The property, having a frontage of one-half mile along the Potomac River, which at this point is broad and picturesque, offers an attractive recreational center. Another use of the property is for demonstrations in forest planting. Several species have been planted, in pure stands and in mixed stands, in an experimental way, to determine the best species to use for forest planting, proper spacing and proper methods suitable for Western Maryland conditions.

PATAPSCO.

The Patapsco Forest, lying along the Patapsco River between Relay and Hollofield, partly in Baltimore County and partly in Howard County, is maintained as a natural park in which the recreational uses are given first consideration. In addition to the 1,106 acres owned by the State, there are 1,300 acres owned by water power companies and private individuals, the use of which is given to the Department of Forestry as auxiliary State Forests. As heretofore, the forest which lies close to Baltimore City has been used extensively for camping and other forms of recreation. The number of campers during the summer of 1927 was less than the previous year, due mainly to the prolonged wet season during the early summer. Five small forest fires occurred on the Patapsco during the year, covering in all eighteen acres, with an actual damage of about \$150. Three of them were fires started by campers, one from burning brush and one from the railroad. All of them were brought promptly under control by the Resident Warden and his helpers. During the year 190 acres were added to the Patapsco Forest by purchasing the Dickey tract, bordering the Patapsco River on the Howard County side for a distance of about two and one-third miles.

THE STATE FOREST NURSERY

The purpose of the State Forest Nursery is to grow trees of suitable kinds and sizes for forest and roadside planting. The trees are furnished at cost, which in the case of small trees for forest planting range from one-quarter of a cent apiece for seedlings up to three cents apiece for larger transplants. During the year 18 different species were distributed—in all, 310,620 trees, of which loblolly pine, white pine, red pine, Norway spruce and tulip poplar were those most largely used. The demand for forest planting stock has always been much in excess of the supply, so that it will be necessary to more than double the output in the next few years if the nursery is to serve its purpose effectively.

Trees for roadside planting are likewise furnished at the cost of growing the stock. During the year trees of 18 different species were distributed to the number of 7,064—principally elm, ash, Oriental plane, tulip poplar, red gum and cypress, ranging in height from five to ten feet.

The nursery has been improved by the installation of an automatic sprinkling system and by the addition of another acre of ground which is being used for transplant rows.

One of the difficulties heretofore has been to find suitable packing material for the forest planting stock. During the past year this difficulty was overcome by collecting sphagnum moss on the Skip-nish State Forest, in Garrett County, and shipping it to the nursery. This is the best packing material known, and since there is a large supply in the glades on the Garrett County Forest, our needs in that respect are amply provided.

SHADE TREE WORK.

The Roadside Tree Law enacted in 1914 placed upon the Department of Forestry the responsibility for the care and protection of trees along the roadways throughout the State and along the streets of incorporated towns. This law recognizes the public interest in shade trees along the highways, and throws around them every safeguard for their protection against pole line companies and private individuals. This law gives the Department of Forestry regulatory power over the trees along the highways to prevent cutting, trimming or removal except by permit. The law also provides for the planting of trees along the highways, with the consent of abutting property owners, but so far no appropriation has been made to the Department for carrying out this provision of the Act. What has been accomplished is to regulate the trimming of trees by the pole line companies, which require clearance for their wires, all trimming being done under the supervision of tree wardens who take care to maintain the trees in as serviceable a condition as possible. During the year approximately 18,000 trees have been trimmed by pole line companies and others under the supervision of the wardens.

The State Forest Nursery sold, at cost, approximately 8,000 trees for roadside planting, which were set out by civic organizations and private individuals along the roadways. These plantings have been very much scattered, without system, but have helped in the general movement toward beautifying roadsides by the planting of shade trees. There are hundreds of miles throughout the State admirably adapted for tree planting, which would, at very small cost, convert them from uninteresting stretches of roadway into pleasing and attractive highways of beauty, with pleasing vistas of landscapes.

This year has been no exception to other years in the increased number of requests for the examination of shade trees and advice for their care and improvement. Increasing numbers have sought advice in protecting their trees from insects and diseases, and information about the identification of trees and shrubs and all matters relating to their care and protection. A special study was made of the trees in the city of Frederick, resulting in a tree census and working plan evolved for the better care of the trees. Individual trees

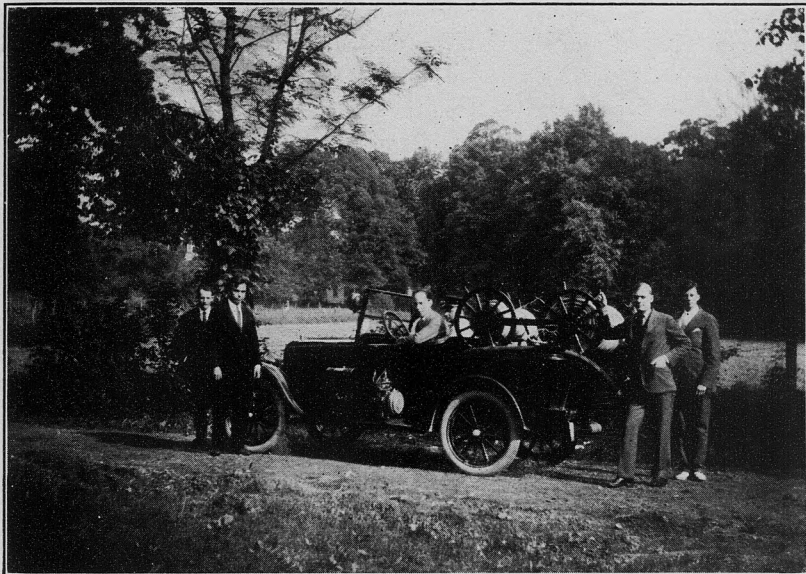


Fig. 1—SANDY SPRING VOLUNTEER FIRE COMPANY FOREST FIRE FIGHTING EQUIPMENT.

Gasoline pump, 1,000 feet of hose, fire rakes, back-firing torches, etc.

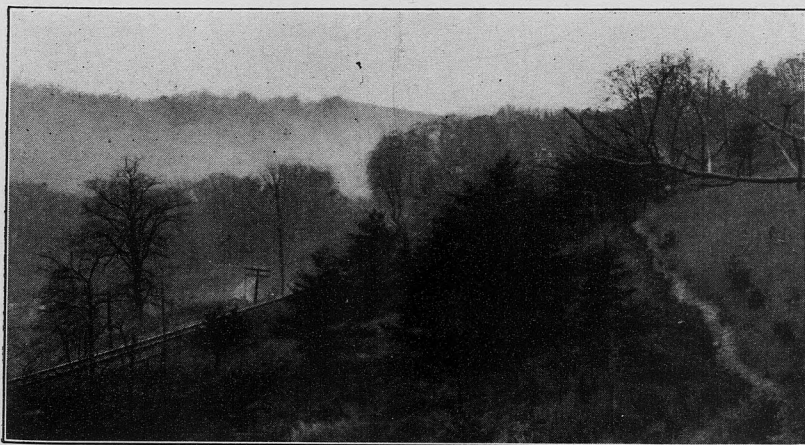


Fig. 2—RAILROAD SAFETY STRIP, PATAPSCO STATE FOREST

The railroads are required, by law, to maintain 100-foot safety strips adjacent to woodlands.

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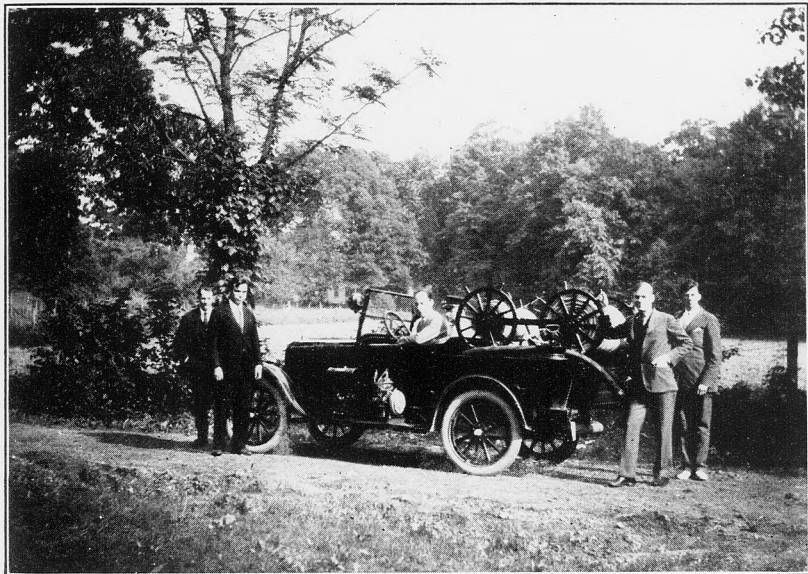


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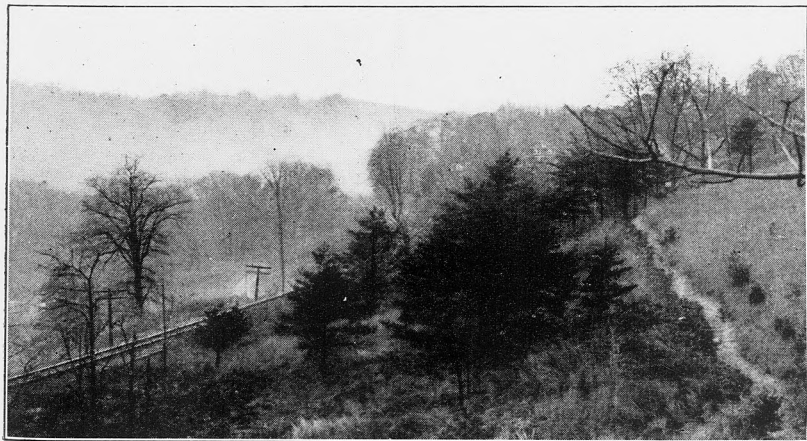


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The railroads are required, by law, to maintain 100-foot safety strips adjacent to woodlands.

around homes and in parks have such a high value and are subject to so many insects, tree diseases and other dangers as to create a special field of activity for the professional arborist, tree surgeon or tree doctor. It is a special branch of work which has developed its own technique, and there are a large number engaged in this profession. The Department of Forestry keeps a list of those who have registered their names as engaged in this class of work. The list is furnished upon request.

INVESTIGATIONS

In its endeavor to keep at all times a reliable list of sawmill and timber operators, the Department has, by inspection trips of the Department staff and through the District Wardens, canvassed the State, revised the list and ascertained the approximate timber cut. This serves two purposes. In the one case, it is used to help landowners who have timber to sell to find purchasers—the Department thereby serving as a clearing-house for producers and manufacturers or users of forest products. The other purpose served is to give a close approximation of the amount of forest products cut during the year, stumpage values, mill prices and other information relative to timber operation that will enable the Department to check up on timber values and uses for the benefit of all concerned.

The red gum study which has been in progress for the past three years was continued during the summer of 1927, and is now well on the way to publication.

The increased demand for tree seedlings suitable for forest planting has necessitated a careful survey of the native tree seed supply. It is not only important to plant seeds and grow trees that are native to the State, and therefore of unquestioned value for reforesting waste land, but it is also important to obtain the seed from trees that grow as far north or in as rigorous a climate as where the seedling are to be planted. Three of our most valuable tree species, well adapted for forest planting, namely, loblolly pine, red gum and cypress, do not grow north of Maryland as forest types, and hence, to be sure of satisfactory results, the reforesting stock should come from Maryland-grown seed. Field investigations have determined that this year, 1927, will be a good

seed year for loblolly pine, and it is planned to collect a large quantity of loblolly pine cones during November, 1927, from which to extract the seed to be used for the next two or three years for growing at the State Nursery an average of 750,000 trees annually of this species for forest planting. The seed crop of cypress and red gum is very light this year, and hence collecting of the seed of these species will be deferred another year, when it is believed a supply may be secured. Good seed years come at intervals of from three to five years for most tree species, so that reserve supplies during good years have to be secured to carry over the lean seed years.

The Tree Contest for securing records of the noted trees of the State started by the Maryland Forestry Association in 1925, aided by the Department of Forestry, has been continued. Additional information secured by the Department in 1927 has brought new trees into the records, and in a few cases the previous "biggest tree of the species" have been supplanted by still larger ones that have been discovered later. This accumulated information makes interesting tree history, and after a few more years of investigation it will be possible to publish a report of "The Noted Trees of Maryland" that will be of general interest.

Some preliminary studies have been made of the buried cypress trees of the Pocomoke Swamp. At intervals for many years it has been the practice to mine buried cypress timber from portions of the Pocomoke Swamp. It is reported that as far back as 1870 Captain Risley, who was engaged in trade between the lower Pocomoke and the West Indies, dug out some of these buried cypress trees, cut them into billets and shipped them to the West Indies for use in making molasses barrels. Since then a number of small operators, at different places in the swamp, have raised the buried logs and cut them into short bolts for making shingles, for which they are admirably adapted. The business has, however, been sporadic, and no concerted effort has been made to utilize this resource.

Further studies are planned to determine the extent of the buried cypress timber and practicable methods for its utilization.

EDUCATION.

The Department is relying largely, as heretofore, upon educational methods to bring about a better understanding of the aims and purposes of forestry. The growing of timber and the use of wood products are of vital interest to every citizen of the State. To arouse this interest and translate it into action is one of the chief tasks of the Department of Forestry. To the owner of forest land, whether his holdings consist of a ten or twenty acre woodlot or a larger timber tract, the value of the forest as a growing crop of trees must be recognized. To the city man who may not be a forest owner but who is a user of forest products, whether it be in building material, paper or any of the numerous uses of wood, it is exceedingly important that a cheap and abundant supply be maintained. Forestry, therefore, has an appeal to every one, and the Department is using various means to reach the individuals. A large number of the individual landowners have been reached through assistance given them on the ground in the better handling of their woodlands, and at the demonstrations that have been made in the various communities to illustrate improved methods of forest management. This phase of the work is more specifically described under Assistance to Woodland Owners in the preceding pages. The demonstration work carried on by the Extension Forester through the Extension Service, in all parts of the State, demonstrating in the woods and at Farm Bureaus and Farmers' Clubs improved methods of handling woodlands, has been the means of greatly extending the knowledge of forestry and better forestry practice throughout the State.

The publications of the Department, bearing on a variety of subjects, are distributed generally throughout the State and have been the means of giving authoritative information on important subjects relating to the forests. During the year a bulletin on Windbreaks and Shelter Belts was published. This 40-page bulletin, written by Fred B. Trenk, Assistant Forester, presents the subject in clear, forceful language, showing the need for windbreaks and shelter belts, the benefits to be derived from them and how they may be established and maintained. The bulletin is furnished free upon application.

Several exhibits were shown during the year at county fairs, and a special exhibit was prepared and shown at the Baltimore and Ohio Centennial at Halethorpe. It occupied about 350 square feet of wall and table space in the Maryland Building and attracted wide attention. It is estimated that approximately 700,000 people saw the exhibit during the three weeks of the Centennial.

The newspapers, both city and county, use liberally the publicity matter furnished by the Department of Forestry, and this has been a means of arousing interest and spreading a knowledge of the popular phases of forestry to the reading public.

A measure of the increasing interest in forestry from the educational standpoint is shown in the large number of lecture requests coming to the Department of Forestry. During the year 127 were given by the State Forester and his assistants before the various civic and improvement associations, service clubs, farmers' organizations and educational institutions. A list of the lectures will be found in the appendix of the report. The Department is equipped with stereopticons, moving-picture machines, a large collection of lantern slides, and several reels of moving pictures, and is prepared to comply with practically all requests that are received for presenting forestry at public meetings.

Under the terms of the Reorganization Act of 1922 the State Forester is head of the Department of Forestry in the University of Maryland, and is to give annually a course of lectures in forestry to the students of the University. He gave during 1927, as heretofore, a course of fifteen lectures and fifteen half-day field demonstrations in farm forestry to the Junior and Senior Classes in Agriculture. The purpose of the course is to prepare students in agriculture for the business of handling woodlands on the farm as a farm crop, and does not contemplate a professional training in the science of forestry.

NEW FOREST LEGISLATION.

The 1927 session of the Maryland Legislature enacted four new laws of special interest.

Chapter 352 provides that land, the use of which is given to the Department of Forestry under a co-operative agreement, shall be designated as auxiliary State Forests subject to the same rules and

regulations that apply to State Forests, but no State money may be expended upon them for permanent improvements. This law increases the area of State-controlled forests, so far as public use for recreation is concerned, about 50 per cent.

Chapter 624 repeals an act of 1908 which authorized the Federal Government to acquire lands for National Forests in Maryland. When the original law was enacted in 1908 the State did not contemplate a State program of acquiring extensive areas for State Forests and, therefore, was willing for the Federal Government to set up national forests. For several years past the State Department of Forestry has been advocating State Forests instead of National Forests for Maryland, and because the area suitable for public forests in Maryland is relatively small and there is not room for both, the repeal of this law removes possible conflict of interests and prepares the way for State Forest acquisition. Furthermore, it is in accord with Maryland's well-known stand for State's rights and exclusive jurisdiction over her lands.

Chapter 649 amends the forest laws relating to incendiary fires, raising the penalty from a maximum of \$1,000 and one year's imprisonment to \$2,000 and five years' imprisonment. It also makes it a misdemeanor for negligently or carelessly allowing a woods, brush or grass fire to escape to the injury of adjoining lands. The purpose of this amendment is to reach effectively every person who causes a fire through his own carelessness or neglect—whether he be hunter, camper, tenant or landowner.

Chapter 291 is a unique local law for Caroline County but of general interest as an experiment in using the taxing power to stimulate the use of home-grown timber. This law provides that for a period of five years from the erection thereof, every farm building in Caroline County shall be exempt from all county taxation to the extent of the value of the lumber or timber used in the construction of said building and grown on the land of the owner. The purpose of the sponsor of this bill was primarily to prevent double taxation, taxing the standing timber and also taxing the timber used in the building, but it will be interesting to see what effect it may have in bringing about better handling of farm woodlands.

FOREST FIRE CONTROL.

In the development of forestry work in Maryland, forest fire control activities have played a major part. The original law creating a forestry department provided for the appointment of forest wardens to enforce the forest laws and to suppress forest fires. Beginning with the appointment of a few wardens in 1906, the work of organizing the State for forest protection has gone steadily forward until, at the present time, all important forest areas are under the protection of these State officers. Under a plan inaugurated in 1922, forest wardens may enlist the aid of experienced and able fire fighters in their locality in the forming of registered crews of six to ten men. At the present time there are 400 forest wardens and 500 registered crew men.

The organization is administered by the State Forester's office, one Assistant Forester devoting his time to the administration of the forest fire control organization. To aid in this administration four District Forest Wardens were appointed in 1922. These men recommend wardens for localities where protection is needed, instruct them in their duties and engage in educational activities to develop fire prevention sentiment. Progress along these lines has been noteworthy. Lookout watchmen are employed during the fire seasons for each of the eleven forest fire lookout towers in the State and for three lookout towers part-time employees have been engaged to supplement the fire suppression activities of the Wardens.

The Forest Wardens of the State have greatly reduced the fire damage to Maryland's forests. Where twenty years ago fires burned unmolested and where little interest or thought was given to forest protection, there are now few fires, and these quickly controlled, with comparatively small damage. Despite the great improvement in protection the ideal is far from being attained. Under conditions of high hazard, fires in Maryland have burned over 50,000 acres in a single year. The present organization is far from adequate to the needs of the State, but considering the funds available for the work, it has proved strikingly efficient, returning to the taxpayers in the form of productive land, saved from unproductivity, many times the amount of money spent. Adequate pro-

tection may be reached only by an expenditure commensurate with the high degree of hazard prevalent over most of our forest area. The necessary expenditure has been carefully computed and set at \$65,000 per annum. Inasmuch as forestry practice on many lands is limited by the forest fire risk, the attainment of adequate protection is of utmost importance to the progress of forestry.

Forest fire control for the year, 1927, has centered in the extension of the organization in educational activities and in enlisting co-operative effort in combating forest fires. The heavy fire season in the spring of 1926 made it necessary to carry over a deficit which was paid out of 1927 appropriations, thus seriously depleting the appropriations for this year. This made it necessary to curtail expenses to the minimum. The usual Forest Warden's conferences—the annual training schools of the personnel—had to be omitted.

A deficiency appropriation was made by the 1927 Legislature, but these funds were not available during the fiscal year for which this report is prepared.

ADMINISTRATION

During the year sixty Forest Wardens were appointed. Of this number about ten represent replacements caused by resignation and fifty represent appointment of men in new localities.

A fire plan, explaining in detail the principles upon which the organization will develop, was set up for the guidance of all members of the organization. The plan is divided into three sections: organization, fire prevention and pre-suppression. The organization section defines the responsibility of all officers and field employees; the fire prevention section outlines the educational and law enforcement activities to be followed in the reduction of the number of fires to a minimum; the pre-suppression section deals with the preparation for fire suppression and includes personnel, selection, training, employment of emergency forces, inspections, supplies and other detailed instructions.



Fig. 1—HOME GROWN TIMBER FOR LOCAL MARKETS
Converting red gum logs into tomato baskets.



Fig. 2—IMPORTED PACIFIC COAST LUMBER.
Maryland pays an annual freight bill of \$5,000,000 on imported lumber.

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In conjunction with the fire plan a fire atlas, consisting of maps and charts showing the past results of forest fire control work and plans for the future, was prepared. The maps show the distribution of Forest Wardens, present and proposed forest fire lookout towers, high hazard areas and the location of forest fires in the past. All available statistical information was brought together in charts and tables.

CO-OPERATION.

Frederick City—Every forest landowner has a definite responsibility, recognized by law, for the protection of his forest lands. The small landowner commonly provides this protection through his presence on or near his woodland, using the resources at his command for the suppression of fires which may originate on his own property or to help his neighbor whose property may be in danger. On the other hand, large landowners, to date, have shown little interest and have provided small facilities for the protection of their forest holdings. To correct this condition, the Department of Forestry invites the opportunity to demonstrate to large forest landowners the approved methods of forest protection, as applied to their property.

The city of Frederick furnishes an excellent example of this kind of co-operation. At the request of the Mayor, a fire plan was prepared for the 5,000 acres owned by the city in the Catoctin Mountains. The plan was presented to the City Council and approved on April 6, 1927.

The plan discusses the main forms of activity necessary to secure adequate protection on this area. Detection is adequately supplied by the Hamburg Tower, built by the city in 1926 and maintained by the Department of Forestry. The plan stresses particularly the construction of a system of fire lines which will cut this large area into small blocks, making it more accessible and easier to protect. Provisions were made for the construction of the necessary telephone lines and cabins, for the employment of additional help during the fire season and for the recruiting of emergency forces in the event of threatening fires.

Since the adoption of the plan work has gone rapidly forward. The primary system of fire lines has been completed and the secondary lines are under construction. The high incendiary hazard makes the problem of protection a difficult one, but with careful adherence to the plan, it is believed that damage from forest fires on the tract will be considerably reduced. Newspapers, civic organizations and many private interests in the city of Frederick have shown interest and have provided support in the development of this project.

Federal Government—The Clarke-McNary Law, passed by the Congress of 1924, provides, each year, a sum of money for forest fire prevention purposes within the State. None of this money may be used for actual fire suppression. For the Federal fiscal year ending June 30, 1927, an allotment of \$4,880 was made, while the budget for the fiscal year, 1928, provides \$6,400. This latter sum is the largest amount received from the Federal Government under this law, and provides a needed emergency fund to draw upon for the employment of additional guards or patrolmen in times of heavy fire danger. An inspection of the fire control organization is made annually by a District Forest Inspector of the Forest Service.

Volunteer Fire Companies—The Department of Forestry co-operates with volunteer fire companies in fire suppression. The co-operative agreement prepared in 1926 requires on the part of the fire companies: (1) Full responsibility for the suppression of forest fires within a district to be decided on in conference; (2) a further responsibility for fire suppression to aid other suppression agencies in serious situations; (3) the appointment of a member of the fire company to take complete charge of fire suppression; (4) the use of approved fire suppression practice. The Department of Forestry agrees: (1) To commission a member of the fire company a Forest Warden; (2) to supply the fire company with the warden's standard kit of forest fire-fighting tools; (3) to pay the members of the fire company the regular fire-fighting wage when employed in fighting fire.

During the past year thirteen companies signed the agreement, making thirty-one companies now enlisted. Besides suppressing

fires within their district, the volunteer companies have formed, under emergency conditions, an invaluable reserve force.

Other States—The Department of Forestry now co-operates with the State of Pennsylvania and West Virginia in maintaining lookout towers. Snaggy Mountain Tower, located near the Maryland-West Virginia line, is maintained jointly by the two States. The Dan's Rock Station supplies detection service to a portion of West Virginia under an arrangement whereby High Knob Tower in West Virginia reports fires in Maryland. Quirauk Tower, owned by the Western Maryland Railroad and loaned to the Forestry Departments of Maryland and Pennsylvania, is maintained jointly by the two States.

Other Agencies—Through an arrangement with the Commissioner of Motor Vehicles, the State police are commissioned Forest Wardens. This body has rendered services of particular value in the investigation of fires of incendiary origin, in fire suppression and in the reporting of fires to the proper officials.

Under a co-operative agreement in force since 1920 three coal companies in the George's Creek Valley—the Consolidated, the George's Creek and the North Maryland—have co-operated in the maintenance of the lookout station at Dan's Rock in Allegany County. The greater proportion of the adjoining land is owned by these companies, and each company pays one-fourth of the cost of maintaining the station, the Department of Forestry also paying one-fourth.

The State Game Department has printed fire warning notices on all hunting licenses and has posted several hundred fire-prevention signs.

Co-operation has been received from several railroads in the posting of fire-prevention posters.

The Lions' Club of Frederick has donated a cup to be presented to the first Forest Warden of Frederick County showing the best record in the year's activities.

Other numerous examples of help in the work of fire prevention might be cited. It will suffice, however, to say that interest in fire

prevention is widespread and that appeals for aid in developing this work have met with a splendid response.

Emergency Forces—The spring of 1926 demonstrated that under very dry conditions, extending over a long period, the services of the local Forest Wardens, even when aided by well-trained registered crews, were not sufficient to cope with the high hazard. Emergency situations demand the services of larger bodies of men than have heretofore been available; consequently, an attempt was made during the past year to interest townspeople in important forest regions in organizing for fire fighting. The response to this appeal was praiseworthy, and three large crews are now organized for fire-suppression work. The first crew is composed of men working for the Kelly-Springfield Tire Company in Cumberland, the second was formed from the employees of the Ox-Fiber Brush Company at Frederick, and the third from the Izaak Walton League of Frederick. In all these cases a splendid spirit was evidenced by the organization concerned. Several other factories and organizations have been approached along this line, and the development of more crews is expected in the coming year.

In advancing this line of work an attempt is made to gain the interest of the employer and to convince him of the necessity and the advantages of forest protection. If the employer is interested in co-operating with the Department, a meeting is usually arranged for the employees. At this meeting a Department representative discusses the situation with the men and requests volunteers for forest fire fighting under emergency conditions. The volunteers are then called together at some later date for the purpose of completing the organization. A leader is selected from among their number; he is commissioned a Forest Warden, and each man's name is recorded as a member of his crew. Tentative plans call for meetings at least twice a year, when talks will be given or demonstrations held. It is not expected that these large crews will be used frequently, but at crucial times, in cases of large fires that cannot be covered by the regular fire-fighting forces; it is of the greatest importance to have large bodies of organized men ready to respond in emergencies.

FIRE PREVENTION.

Fire Warning Signs—A new fire sign, illustrated by a cut in the appendix of this report, was developed for use during the year. Five thousand of these signs have been posted by Department employees, railroads, the State Conservation Commission and other co-operative agencies. The policy of posting sixteen-by-twenty-inch signs on wooden backs along the State roads, inaugurated in 1926, has been carried forward. About 200 miles of State highway have in this way been posted, the signs being placed at two-mile intervals, and plans are now under way for posting about 400 miles of additional highway.

Railroad Fire Hazards—The railroad safety strip law of 1924 requires that all railroads clear annually, between October 1 and April 15, a 100-foot strip along such portions of their tracks as have been declared a fire hazard. The annual inspection of railroad fire hazards was made in the spring of 1927. Due to the damp conditions prevailing during the fall and spring of the past year, many railroads found it difficult to clear all the hazards by April 15, and, as a result, dangerous conditions prevailed at some points along the railroads during the fire season. Forest fires caused by the railroads amounted this year to 24 per cent. of the total, as against 11 per cent. for 1926, although the total number of fires from this cause was decreased from 61 to 55. The increase is due, in a large part, to fifteen railroad fires, of the total of 55, which occurred in three days' operation of a short spur railroad along which safety strips had not been cleared. It will be noted that the damage by railroad fires and the cost of suppression were quite small for the past year.

Fire Claims—No fire claims were listed for collection in the fall of 1926. During the spring season of 1927, 18 fire claims were listed for collection. Of this number, 11 have been paid, four claims are pending and three have been dropped. No criminal prosecutions were made during the past fiscal year.

Lectures and Exhibits—One hundred and twenty-seven lectures were given during the year. These lectures do not deal entirely

with fire prevention, but mention was made of this phase of forestry work in all cases. The practice of lecturing in various points of the State, at the request of schools, clubs, and civic organizations, has had a cumulative effect, over several years, of creating a consciousness of fire prevention needs which tends to lighten the task of protection. Exhibits dealing wholly or in part with fire prevention were held at Frederick, Cumberland, Oakland and at the Fair of the Iron Horse at Halethorpe.

Other Activities—The District Forest Wardens, in their travels, are constantly performing fire prevention activities—saw mills are inspected under the spark arrester law, farmers are counseled in the burning of brush and campers and hunters cautioned as to the care of fire in the woods. Schools are visited at intervals and the children taught the importance of the forests and how they should be protected. The result of such activities may be difficult to appraise at the present time, but there can be no question that this policy of education will gradually, year by year, result in a reduction in the number of forest fires.

FOREST FIRES.

The fire statistics in this report are for the calendar year, 1927, instead of for the fiscal year October, 1926, to October, 1927. This change removes the necessity of preparing statistical tables twice—once for the report of the Federal Government and once for the State report. As nearly all fire statistics are tabulated for the calendar year, the fiscal year statistics were of little value in comparing the record of Maryland with that of other States.

Sixteen fires occurred in the fall season of 1926, burning over a total of 220 acres, at a damage of \$779. The low damage figures are explained by the abundant, well-distributed rainfall which occurred during the autumn months.

In the spring of 1927 a light, or moderate, fire season was experienced. There were reported 126 fires, which burned over 2,241 acres, with a damage of \$13,574. No particularly hazardous period

developed, and no fires occurred in the 1,000-acre class. The rainfall was again well distributed, with no periods of low relative humidity and high winds. The average fire in the spring season burned 18 acres.

The fall fire season of 1927 was of moderate intensity; 101 fires occurred, burning over an area of 1,961 acres, with a damage of \$10,661. Allegany County reported 21 fires, followed by Prince Georges with 17 and Montgomery and Garrett with 12. The size of the average fire was 19 acres.

In the calendar year, 1927, as a whole, 227 fires occurred, burning over 4,202 acres with a damage of \$24,237. The expenses of suppression amounted to \$1,324.45. The fires averaged 19 acres of land burned. Altogether, it was a most successful year from the standpoint of forest fire control, and while this is due largely to favorable weather conditions, some increase in the efficiency of the fire prevention and fire suppression forces is evidenced in the reduced figures. The figure of 19 acres for the average fire is low for any forest fire control organization, and while it cannot be expected that this low figure will always be maintained, it is gratifying to know that it is possible of attainment. The acreage burned over, expressed as a percentage of the total area of the forest lands of the State, is 0.18 per cent., which largely approaches the adequate protection figure. Railroads led in the total number of fires during the year, causing 55. It should be noted in this connection that 15 fires, or 27 per cent. of all railroad fires, occurred on one short spur railroad, which did not clear safety strips. Smokers' fires numbered 47, making 21 per cent. of the total. Brush-burning fires numbered 43, or 19 per cent. Other causes listed are incendiary, 22 fires, or 10 per cent.; campfires, 11 fires, or 5 per cent.; miscellaneous, 18 fires, or 8 per cent.; unknown, 30 fires, or 13 per cent. of the total.

REPORT FOR 1927

FOREST FIRES BY SEASONS IN THE COUNTIES

	Fall, 1926			Spring, 1927			Fall, 1927					
	No.	Acres	Damage	Expense	No.	Acres	Damage	Expense	No.	Acres	Damage	Expense
Allegany	2	100	\$500.00	\$52.45	6	132	\$331.50	\$43.75	21	237½	\$527.75	\$144.10
Anne Arundel	4	7	10.00	2.70	11	134¾	748.50	69.05	4	108	133.00	15.40
Baltimore					3	46	247.00	17.30	1			
Calvert					1	2½	15.00	6.50	1	1		7.70
Caroline					2	132	945.00	4.40	2	14	22.00	
Carroll	1	2	50.00	16.30					1	10	100.00	8.50
Cecil	1	2	2.00	2.90	11	183	358.50	41.35	1	25		2.95
Charles					2	81½		10.00	4	11	22.50	6.20
Dorchester					2	12	118.00		3	15½	15.00	21.50
Frederick	1	1	5.00	5.25	5	27½	183.00	25.00	3	5	8.50	24.60
Garrett	1	15	7.50	5.50	19	428¼	660.88	46.75	12	364½	679.00	71.50
Harford					3	24	55.50	13.80				
Howard					5	5¾	14.75	17.20	3	¾	1.00	1.00
Kent					1	1½			1	500		1.50
Montgomery					7	26¾	33.00	25.80	12	43%	6,159.00	110.70
Prince Georges					31	576½	577.50	226.50	18	30¾	438.50	32.40
Queen Annes									1	2		2.60
St. Marys					2	15½	565.00	18.90	6	78	1,500.00	40.35
Somerset					1	60	380.00	3.50	2	70	520.00	
Talbot									1	300		
Washington	1	80	190.00	26.80	3	32	113.00	24.00	4	145½	535.00	60.85
Wicomico					6	319	7,845.00	96.85				
Worcester					5	74½	384.50	78.95				
Total	6	20	\$779.00	\$128.70	126	2,241	\$13,573.63	\$769.60	101	1,961½	\$10,661.25	\$551.85
False Alarms.	1			2.00	12			61.25	4			29.00
	17		\$130.70		138			\$830.85	105			\$580.85

FOREST FIRES BY COUNTIES

January 1 to December 31, 1927.

County.	No.	Acreage	Damage.	Expense
Allegany	27	369 $\frac{3}{8}$	\$859.25	\$187.85
Anne Arundel	15	242 $\frac{3}{4}$	881.50	84.45
Baltimore	4	46	247.00	17.30
Calvert	2	3 $\frac{1}{2}$	15.00	14.20
Caroline	4	146	967.00	4.40
Carroll	1	10	100.00	8.50
Cecil	12	208	358.50	44.30
Charles	6	19 $\frac{1}{2}$	22.50	16.20
Dorchester	5	27 $\frac{1}{8}$	133.00	21.50
Frederick	8	32 $\frac{1}{2}$	191.50	49.60
Garrett	31	792 $\frac{3}{4}$	1,339.88	118.25
Harford	3	24	55.50	13.80
Howard	8	6 $\frac{1}{2}$	15.75	18.20
Kent	2	500 $\frac{1}{2}$	.....	1.50
Montgomery	19	70 $\frac{3}{8}$	6,192.00	136.50
Prince Georges	49	607 $\frac{1}{4}$	1,016.00	258.90
Queen Annes	1	2	.....	2.60
St. Marys	8	93 $\frac{1}{2}$	2,065.00	59.25
Somerset	3	130	900.00	3.50
Talbot	1	300	.....	.....
Washington	7	177 $\frac{1}{8}$	648.00	84.85
Wicomico	6	319	7,845.00	96.85
Worcester	5	74 $\frac{1}{2}$	384.50	78.95
Total	227	4,202 $\frac{1}{2}$	\$24,236.88	\$1,321.45
False Alarms	16	.....	.....	90.25
	243			\$1,411.70

CAUSES OF FOREST FIRES BY COUNTIES

July 1-December 31, 1926.

County	R. R.	Campers	Miscel.	Unknown	Total	F. A.
Allegany .....	.....	.....	1	1	2	.....
Anne Arundel	1	.....	.....	3	4	.....
Carroll .....	.....	.....	.....	1	1	.....
Cecil	1	.....	.....	.....	1	.....
Frederick .....	.....	.....	.....	1	1	.....
Garrett	1	.....	.....	.....	1	1
Prince Georges	2	2	.....	1	5	.....
Washington .....	.....	1	.....	.....	1	.....
Total	5	3	1	7	16	1
Per cent.....	31	19	6	44	100	.....

CAUSES OF FOREST FIRES BY COUNTIES

January 1 to December 31, 1927.

County	R. R.	B. B.	Incen.	Smoking	Campers	Miscel.	Unknown	Lbrg.	Total	F. A.
Allegany	7	1	3	5	1	6	4	.....	27	4
Anne Arundel	1	6	.....	8	.....	.....	.....	.....	15	.....
Baltimore	2	.....	.....	1	1	.....	.....	.....	4	.....
Calvert .....	.....	.....	.....	1	.....	.....	1	.....	2	.....
Caroline .....	.....	2	.....	1	.....	.....	1	.....	4	.....
Cecil	3	2	1	3	.....	1	2	.....	12	2
Carroll .....	.....	.....	.....	1	.....	.....	.....	.....	1	.....
Charles	1	1	.....	1	1	1	1	.....	6	.....
Dorchester .....	.....	2	.....	2	.....	1	.....	.....	5	.....
Frederick .....	.....	1	3	2	.....	.....	2	.....	8	5
Garrett	17	3	4	2	1	3	1	.....	31	2
Harford	2	.....	.....	1	.....	.....	.....	.....	3	.....
Howard	2	1	.....	1	.....	2	2	.....	8	.....
Kent .....	.....	.....	.....	1	.....	.....	1	.....	2	.....
Montgomery	1	3	4	4	3	1	3	.....	19	.....
Prince Georges	18	7	6	6	.....	5	7	.....	49	.....
Queen Annes .....	.....	.....	.....	1	.....	.....	.....	.....	1	.....
St. Marys .....	.....	.....	.....	3	1	1	3	.....	8	.....
Somerset .....	.....	1	.....	2	.....	.....	.....	.....	3	.....
Talbot .....	.....	.....	.....	1	.....	.....	.....	.....	1	.....
Washington .....	.....	1	2	1	1	1	1	.....	7	1
Wicomico .....	.....	6	.....	.....	.....	.....	.....	.....	6	2
Worcester	1	1	.....	.....	.....	1	2	.....	5	.....
Total.....	55	38	23	48	9	23	31	.....	227	16
Per cent.....	24	17	10	21	4	10	14	.....	100	.....

DAMAGE OF FOREST FIRES BY CAUSES

January 1 to December 31, 1927.

Cause	No.	Per cent.	Area	Damage
Railroad	55	25	423 $\frac{1}{4}$	\$552.13
Brush Burning	43	17	817 $\frac{5}{8}$	9,701.00
Smoking	47	21	1,484 $\frac{5}{8}$	3,336.25
Incendiary	22	10	472	6,276.75
Campers	11	5	284 $\frac{1}{2}$	2,284.00
Lumbering	1		10	100.00
Miscellaneous	18	8	330	940.50
Unknown	30	14	380 $\frac{1}{2}$	1,046.25
Total	227	100	4,202 $\frac{1}{2}$	\$24,236.28
False Alarms	16			
Total	243			

NUMBER AND PERCENTAGE OF FIRES BY FOREST REGIONS

January 1 to December 31, 1927.

	No.	Per cent.
Western Maryland—Frederick, Washington, Allegany, Garrett	73	32
Southern Maryland—Prince Georges, Anne Arundel, Charles, Calvert, St. Marys, Montgomery	99	44
Piedmont Plateau—Carroll, Howard, Baltimore, Har- ford, Cecil	28	12
Eastern Shore—Kent, Queen Annes, Caroline, Talbot, Dorchester, Wicomico, Worcester, Somerset	27	12
	227	100

FINANCIAL STATEMENT

1927.

Balance, October 1, 1926.....	\$2,840.76
Receipts (October 1, 1926-September 30, 1927) :	
State Treasurer	\$37,726.71
Woodlot Work (travel).....	132.95
Reimbursement (fire expenses).....	635.97
Other Sources	309.00
	\$38,804.63
Interest, F. & M. National Bank.....	70.52
	38,875.15
	\$41,715.91
Expenditures (October 1, 1926-September 30, 1927) :	
Salaries and Wages.....	\$28,039.44
Repairs to Buildings, Garrett.....	75.00
Repairs to Buildings, Patapsco.....	75.00
Repairs to Motor Vehicles	299.98
Traveling	2,559.40
Freight and Expenses	112.89
Postage	1,128.35
Office Supplies	657.40
Printing	539.21
Seeds and Trees	954.91
Motor Supplies	105.12
Office Equipment	327.26
Field Equipment	755.87
Rent	1,200.00
Maintenance of Autos	1,277.09
Miscellaneous—Income sent to State Treasurer.....	979.48
	\$39,086.40
Bank balance, September 30, 1927.....	\$ 2,629.51

APPENDIX

LECTURES

* Illustrated. † Extension Department

	Date	Location	Under Auspices
	1926		
Oct.	5	Baltimore	*Men's Club, Epworth M. E. Church.
"	19	Merrills	†Farm Bureau.
"	19	Boxiron	†*Farm Bureau.
"	20	Baltimore	*Boy Scouts, Eastern District.
"	20	Williams	†*Farm Bureau.
"	21	Marlboro	*Marlboro High School.
"	21	Clinton	*Surrattsville High School, P. T. A.
"	21	Pocomoke	†*Farm Bureau.
"	22	Baltimore	*School No. 63.
"	22	Newark	†*Farm Bureau.
"	22	Fallston	*Harford Grange.
"	23	Snow Hill	†*Farm Bureau.
"	25	St. Martins	†*Farm Bureau.
"	26	Acquango Branch	†*Farm Bureau.
"	27	Annapolis	Civitan Club.
"	28	Hagerstown	Kiwanis Club.
"	29	Baltimore	*3rd Lutheran Brethren Church.
Nov.	4	Catonsville	*Academy of the Visitation.
"	5	Baltimore	Pimlico School.
"	5	Baltimore	*Christian Church.
"	6	Ilchester	*Donaldson School.
"	8	Baltimore	*St. Paul's Evangelical Luth. Church.
"	8	Port Deposit	*Tome Institute.
"	9	Baltimore	Lions' Club.
"	9	Crownsville	†*Four Rivers Garden Club.
"	10	Woodwardville	†Farm Bureau.
"	11	Glenarm	*Glenarm School.
"	12	Baltimore	*St. Catherine's Normal School.

LECTURES—(Continued)

	Date	Location	Under Auspices
	1926		
Nov.	12	Baltimore	*Salem U. B. Church.
"	12	Weverton	*Parent-Teachers' Association.
"	15	Pocomoke	†Rotary Club.
"	15	Baltimore	Women's Advertising Club.
"	17	Lewistown	*Community.
"	18	Yellow Springs	*Community.
"	18	Baltimore	*Roland Park Country School.
"	19	East New Market	†*Grange.
"	21	Beaver Creek	*Beaver Creek Community Club.
"	22	Towson	*Towson School.
"	22	Accident	*Accident High School.
"	23	Woodlawn	*St. Agnes' School.
"	26	Baltimore	*Garrett Park M. E. Church.
"	26	Frostburg	*State Normal School.
Dec.	1	Reisterstown	Women's Club of Glyndon.
"	2	Baltimore	Junior High School No. 1.
"	3	Baltimore	*Maryland Dahlia Society.
"	10	Baltimore	*Scouts, Church of the Nativity.
	1927		
Jan.	4	Havre de Grace	Parent-Teachers' Association.
"	14	Bethesda	*Bethesda Fire Company.
"	14	Baltimore	*Immanuel Lutheran School, P. F. Assn.
"	18	Cumberland	*N. Center Street School, P. T. A.
"	19	Sparrows Point	*High School.
"	19	Cumberland	Penna. Ave. High School Assembly.
"	19	Cumberland	Penna. Ave. High School Classes.
"	19	Cumberland	*Columbia Street School, P. T. A.
"	20	Linthicum Heights	*Parent-Teachers' Association.
"	20	Cumberland	Green Street School Science Class.
"	20	Cumberland	Kiwanis Club.
"	20	Cumberland	*Johnson Heights School, P. T. A.
"	21	Cumberland	Allegany High School Science Class.
"	21	Cumberland	Allegany High School Science Class.
"	21	Cumberland	Allegany High School Science Class.
"	21	Cumberland	*Mt. Royal School, P. T. A.
"	28	Baltimore	*School No. 83.

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LECTURES—(Continued)

Date	Location	Under Auspices
1927		
Feb. 9	Chase	*Patrons Club, Chase School.
" 10	Baltimore	*Gwynns Falls Jr. High School.
" 14	Roland Park	*Cedarcroft Garden Club.
" 15	Unionville	*Women's Civic Club.
" 15	Harmony Grove	*Women's Civic Club.
" 17	Baltimore	*Fidelis Club, Y. W. C. A.
" 17	Towson	*Towson High School.
" 18	Baltimore	*School No. 71.
" 28	Whitehall	*Parent-Teachers' Association.
" 28	Baltimore	*Guilford Garden Club.
" 28	Baltimore	Ziegler Church.
Mar. 1	Baltimore	Pikesville Garden Club.
" 1	Yellow Springs	†*School.
" 2	Catoctin	†*School.
" 3	Near Wolfesville	†*Sensenbaugh School.
" 7	Pikesville	Pikesville Garden Club.
" 8	Freeland	*Eklo School.
" 9	Monkton	*Parent-Teachers' Association.
Mar. 10	Baltimore	*Y. M. C. A.
" 14	Newark	†*Farm Bureau.
" 15	Acquango Branch	†*Farm Bureau.
" 16	Snow Hill	†*Farm Bureau.
" 17	Williams	†*Farm Bureau.
" 23	Baltimore	*Maryland Academy of Science.
" 23	Baltimore	*Civic Club, School 79.
" 24	Somerset, Montgomery Co.....	*Somerset Citizens.
Apr. 1	Baltimore	*Camp Fire Girls, Starr M. E. Church.
" 1	Woodford	†Parent-Teachers' Association.
" 6	Locust Point	*School No. 76, P. T. A.
" 6	Baltimore	*Goucher College Biology Students.
" 7	Baltimore	*Eastern High School.
" 8	Baltimore	Junior High School No. 70.
" 8	Baltimore	United Women of Maryland.
" 8	Fallston	†Grange.
" 11	Port Deposit	†*Parent-Teachers' Association.
" 15	Meadow Brook	†*Parent-Teachers' Association.

LECTURES—(Continued)

Date	Location	Under Auspices
1927		
May 14	Colora	West Nottingham Academy.
" 20	Baltimore	Optimists' Club.
" 20	Baltimore	*Consol. Gas, Elec. Lt. & Power Co.
" 20	Baltimore	*Purchasing Agent Assn. of Maryland.
" 21	Mt. Carmel	Patrons' Club.
" 21	Baltimore	Water Engineers' Convention.
" 23	Parkton	Cooper School, P. T. A.
" 26	Baltimore	Lions' Club.
" 27	Baltimore	*Eastern High School Science Class.
" 28	Baltimore	*Junior High School No. 79.
" 28	Baltimore	*Junior High School No. 49.
" 28	Laurel	*D. A. R.
" 29	Baltimore	*Vocational School.
" 29	Baltimore	*Vocational School.
" 29	Baltimore	*Vocational School.
" 29	Parkton	*Foreston School, P. T. A.
" 29	Baltimore	*Francis Scott Key Chapter, D. A. R.
" 30	Baltimore	*Republican Women of Baltimore.
" 3	College Park	Engineering Class, University of Md.
" 7	Mt. Etna	*Mt. Etna Parent-Teachers' Assn.
" 13	Bethesda	*The Garden Club.
" 19	Baltimore	*Men's Assn., Walbrook Pres. Church.
" 26	Forestville	*Camp Fire Girls.
June 30	Woodlawn	*Community Brotherhood.
Aug. 4	Brandywine	†*Grange.
" 6	College Park	† 4 H Club, State Camp.
" 11	Brandywine	*Pomona Grange.
" 24	Cascade	State Police.

Total Number of Lectures..... 127

Number Illustrated 93 Number not Illustrated 34

WOODLAND EXAMINATIONS

Date	Name	Address	Location	Acres
1926				
Oct. 4	Smith, Mrs. Mary	Eden, Route 1	Near Fruitland	150
" 15	Riggs, Col. E. F.	Hyattsville	Between Hyattsville and Takoma Park	200
" 21	Y. W. C. A.	Baltimore	Near Annapolis	25
" 23	Holloway, Wm.	Newark	2½ Miles W. of Newark	60
" 28	Steele, Dr. J. M.	Garrison	Near Garrison	15½
Nov. 15	Washington San. & Hos.	Takoma Pk.	Wash. Takoma Park	30
" 15	White, Miss M. L.	Ashton	Ashton	30
" 17	University of Maryland	College Park	Near Princess Anne	200
" 18	Williams, J. W.	Delmar, Route 3	2½ Miles S. of Delmar	40
" 18	Meehan, Charles	Delmar, Route 3	2½ Miles S. E. of Delmar	17
" 18	Oliphant, Urie	Delmar, Route 3	3½ Miles S. E. of Delmar	28
" 19	Murphy, Mrs. M.	Jessups	Near Jessups	55
" 24	Diamond, J. B.	Gaithersburg	.1 Mile W. of Gaithersburg	35
" 27	Riley Estate	Rockville	Oakdale	225
" 29	Spicer, L. T.	Golden Hill	1½ Mile S. of Gum Swamp	3
Dec. 1	Massey, E. T.	Massey	1¾ Miles W. of Massey	125
" 1	Hergenrather, Louis J.	Towson	Breston, Queen Annes Co	60
" 9	Charles County Fair Assn.	La Plata	La Plata	15
" 14	Price, J. H. A.	Middleburg	Middleburg	15
1927				
Jan. 12	Woodstock College	Woodstock	Woodstock	40
" 26	Brown, F. S.	Philadelphia, Pa.	Town Point, Cecil County	90
" 28	Thomas, Clyde E.	Gaithersburg	Near Gaithersburg	50
Feb. 2	Hopkins, R. B.	Baltimore	Jones Falls, Green Spring Av.	31
" 4	Darby, R. A.	Baltimore	Near Indian Springs	600
" 15	Lee, Mrs. Johanna	Owings Mills	Between Randallstown and McDonogh	95
" 25	Ensor, Miss Rachel	Cockeysville	Near Butler	15
Mar. 15	Null, Jacob D.	Taneytown	Near Taneytown	28
" 16	Perdue, A. M.	Snow Hill	7 Miles W. of Snow Hill	30
" 17	Crissey, Edward B.	Princess Anne, Route 1	Near Princess Anne	50
" 17	Ring, J. J.	Westover	Near Westover	135
" 17	Hall, James	Princess Anne	7 Miles W. of Princess Anne	120
" 17	Willey, D. P.	Eden	Near Eden Station	1264
" 24	Seth, General J. B.	Easton	2 Miles W. of Dover Bridge	130
" 25	Calhoun, C. C.	Washington, D. C.	Near Chevy Chase	72
Apr. 2	Ruehl, V. E.	Easton	Near Royal Oak	35
" 2	Miss M. Caulk	Trappe	Near Bozman	40
" 2	Delmore End Farm	Safe Deposit and Trust Co., Balto.	Bay Hundred District	50
" 6	Valley Lee Epis. Church	Valley Lee	Valley Lee	70
" 8	Bradenbaugh, E.	White Hall R. 3	Near Jarrettsville	48

WOODLAND EXAMINATIONS—(Continued)

Date	Name	Address	Location	Acres
1927				
Apr. 14	Warrior Mt. Orch. Co.	Oldtown	Oldtown	2200
" 19	Nicodemus, S.	Edgemont	Edgemont	140
May 24	Tumbleson, Dr. C. C.	Sandy Spring	Sandy Spring	6
June 21	Rosenblatt, S.	Paris	Near Paris	300
" 23	Dinsmore, T. M.	Baltimore	Near Glen Morris	120
" 23	Medinger, G. M.	Reisterstown	Reisterstown	28
" 24	Cory, H. F.	Linthicum	Linthicum	2
" 29	Baltimore Orphan Asylum	Baltimore	Govans	13
July 1	Henry, Dr. J. N.	Philadelphia, Pa.	Elk Neck	175
" 12	Klemm, F. L.	Baltimore	Near Contee	100
Aug. 18	War Department	Edgewood	Fort Hoyle	500
Sept. 1	Sauter, Edw. C.	Woodlawn	Ridge Road	50
" 3	Noonan, Thomas E.	Baltimore	Near Crystal Springs	8
" 8	King, Benjamin	Gambrills	Near Priests Ridge	1318
" 9	Lee, E. Brooke,	Silver Spring	Near Silver Spring	5
" 28	Hayman, Sidney	Princess Anne	Near Princess Anne	95
" 28	Bond, N. G.	Berea, Ky.	Near Bond Station	9830
" 30	Harchler, John M.	Salisbury, Pa.	2 Miles N. E. of Grantsville	120

Total number of Woodland Examinations, 57.

Total acres 19,331½

WOODLAND EXAMINATIONS

Oct. 1, 1926, to Sept. 30, 1927.

County	Number	Acres
Allegany	1	2,200
Anne Arundel	4	1,353
Baltimore	9	407½
Calvert	1	300
Carroll	2	43
Cecil	3	765
Charles	1	15
Dorchester	1	3
Garrett	2	9,950
Harford	1	48
Howard	1	55
Kent	1	125
Montgomery	8	453
Prince Georges	2	300
Queen Annes	1	60
St. Marys	1	70
Somerset	6	1,864
Talbot	4	255
Washington	2	740
Wicomico	4	235
Worcester	2	90

Total number Woodland Exams. 57

Total acres 19,331½

MARKINGS

Date	Name	Address	Location	Acres
1926				
Nov. 26	Scott, Dr. S. I.	Sandy Springs	2 Miles from Sandy Springs	30
" 29	Wickes, Mrs. L. W.	Chestertown	Shrewsbury Neck	55
Dec. 7	Sullivan, James	Washington	White Oak School House	70
1927				
Jan. 6	Trainer, Mrs. A.	Philadelphia, Pa.	Seat Pleasant	40
" 18	Crooks, C. C.	Baltimore	Near Randallstown	75
" 25	Woodstock College	Woodstock	Woodstock	125
Feb. 2	Hopkins, R. B.	Baltimore	Jones Falls, Green Sp. Ave	31
Apr. 6	Null, J. D.	Taneytown	Half Mile N. of Taneytown	28
May 24	Tumbleson, Dr. C. C.	Sandy Spring	Sandy Springs	6
Sept. 9	Lee, E. Brooke	Silver Spring	Near Silver Spring	5
Total number of Markings, 10.				Total acres 465

MARKINGS

Oct. 1, 1926, to Sept. 31, 1927.

County	Number	Acres
Baltimore	3	231
Carroll	1	28
Kent	1	55
Montgomery	3	106
Prince Georges	2	45
Total number of Markings 10		Total acres 465

THINNING DEMONSTRATIONS

Nov. 18	Adkins, E. S.	Delmar	Near Delmar	1/3
" 29	Spicer, L. T.	Golden Hill	1 1/2 Miles S. of Gum Swamp	3
1927				
Apr. 19	Nicodemus, S.	Edgemont	Near Edgemont	1
Total Number of Thinning Demonstrations, 3.				Total Acres 41/3

THINNING DEMONSTRATIONS

Frederick	1	1
Somerset	1	1/3
Wicomico	1	3
Total number of Thinning Demons. 3		Total acres 41/3

ESTIMATES

1927				
Sept. 8	King, Benjamin	Gambrills	Near Priests Bridge	1318
Total number of Estimates, 1.				Total acres.....1,318

ESTIMATES

Anne Arundel	1	1,318
Total number of Estimates, 1.		Total acres..... 1,318

PLANTING PLANS

Date	Name	Address	Location	Acres
1926				
Oct. 22	Parkville School	Parkville	Parkville	
Oct. 25	Tyndall, Marvin	Newark	E. of Newark	2
Nov. 10	Aberdeen Proving Grounds	Aberdeen	Aberdeen	
Nov. 11	Duckett, C. L.	Davidsonville	W. of Davidsonville	100
Nov. 18	Emmitsburg Water Co.	Emmitsburg	Emmitsburg	10
Nov. 20	Dr. Metzertott Estate	Rt. 7, Brookland,		
1927		D. C.	1 Mi. W. of Berwyn	30
Jan. 27	John, George	Middleburg	Near Middleburg	2
Jan. 27	Green, John M.	Rt. 4, Westminster	Near Westminster	2
Jan. 28	Patchett, Joseph E.	Keyser, W. Va.	McCool	75
Mar. 14	Surman & Corddry	Snow Hill	Near Snow Hill	18
Mar. 15	Disharoon, C. R.	Salisbury	Near Salisbury	390
Apr. 8	Sexton, E. V.	Stewartstown, Pa.	Near Norrisville	
Apr. 8	Bradenbaugh, Edw.	Rt. 3, White Hall	Near Jarrettsville	48
Apr. 20	Roth, Daniel	R.D. Williamsport	Near Williamsport	2
June 24	Sweeney, John P.	Joppa	Near Joppa	40
July 1	Henry, Dr. J. N.	Philadelphia, Pa.	Elk Neck	10
Sept. 27	Resthaven Cemetery Co.	Hagerstown	Hagerstown	1
Sept. 30	Curtiss, Miss Ethel	Bagley	Bagleys Corners	2 3/4

Total number of Planting Plans, 16. (Forest); 2 (Shade Tree). Total acres.... 732 3/4

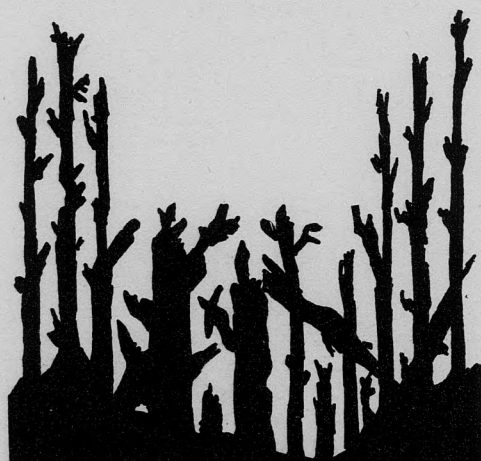
PLANTINGS

Date	Name	Address	Location	Acres
1926				
Fall	Niemeyer, Wm.	Bethesda	Bethesda	1/2
Fall	Stillwell, G. J.	Ruxton	Ruxton	1/2
Fall	Buttner, Jacob J.	Baltimore	Bar Harbor, Rock Creek	1/2
Fall	Cunningham, Ed. G.	Sewickley, Pa.	Frederick	1
Fall	Ruppert, J. Frank	Wash., D. C.	Ritchie	1
Fall	Hatton, Oscar G.	Severna Park	Severna Park	1 1/4
Fall	Hunter, John W.	McDaniel	McDaniel	1/2
Fall	Bishop, G. W.	Baltimore	Towson	2 1/3

PLANTING—(Continued)

	Date 1927	Name	Address	Location	Acres
318	March 16	Hancock, Wm. and S.	Snow Hill	3 Mi. N. E. of Snow Hill	2
318	March 25	Disharoon, C. R.	Salisbury	Near Salisbury	5
	March 20	DuPont, Coleman	Wilmington, Del.	Horn Pt. Farm, nr. Camdgc.	100
	March 29	Claggett, T. Van	Upper Marlboro	2 Mi. S. W. Upper Marlboro	1
	April 2	Meredith, Ed	Cambridge	Near Bucktown	4
	April 7	Hall, Thomas J.	Tracy's Landing	Near Tracy's Landing	2
	Spring	Evans, Standley	Elkton	Veazy Neck	2
	March 19	Green, John M.	Rt. 4, Westminster	5 Mi. N. E. of Westminster	1
	Spring	John, George	Middleburgh	Middleburgh	2
Acres	Spring	Baltimore City Water Department	Baltimore	Loch Raven Dam	30
	Spring	Emmitsburg Water Company	Emmitsburg	Emmitsburg	2
2	Spring	Gladfelter Pulp Co.	La Plata	La Plata	12 2/3
100	Spring	Metzerott, Dr., Estate	Rt. 7, Brookland,		
10			D. C.	Berwyn	2
	Spring	Patchett, Jos. E.	Keyser, W. Va.	McCool	5
30	Spring	Shank, Isaac	Rt. 6, Hagerstown	Hagerstown	2
2	Spring	Bishop, G. W.	Baltimore	Towson	2 1/4
2	Spring	Woodstock College	Woodstock	Woodstock	12 2/3
75	Spring	Row, Charles E.	Hagerstown	Hagerstown	1 1/4
48	Spring	Schmidt, F. A.	Sandy Spring	Sandy Spring	12 2/3
390	Spring	War Department	Camp Meade	Camp Meade	33
	Spring	War Department	Edgewood	Edgewood Arsenal	1 1/2
48	Spring	Wilkins, John F.	Washington, D. C.	Rockville	22 2/3
2	Spring	Izaak Walton League	Frederick	Frederick City Watershed	1
40	Spring	Marbury, Charles C.	Upper Marlboro	Upper Marlboro	1
10	Spring	Wickes, Dr. Walter	Brooklandville	Brooklandville	1 1/2
1	Spring	O'Donnell, E. R.	Oakland	Mt. Lake Park	1
2 3/4	Spring	Frederick City	Frederick	Frederick City Watershed	1
732 3/4	Spring	John, John J.	New Windsor	New Windsor	12 2/3
	Spring	Brenneman, O. T.	Grantsville	Near Bittering	2/3
	Spring	Samis, Ira H.	Denton	Ridgely	1
	Spring	Bradford, H. B.	Middletown, Del.	Middle Neck	1 1/2
Acres	Spring	Koons, T. D., Jr.	Frederick	Near Detour	1
	Spring	Sloan, Martin F.	Baltimore	Sparks	1
1 1/2	Spring	Mason, Samuel, Jr.	Darlington	Darlington	2
1 1/2	Spring	Watkins, Asa H.	Mt. Airy	Mt. Airy	5 1/2
1		Total number of Plantings, 43.		Total acres	231 1/2
1					
1 1/4					
1 1/2					
2 1/3					

PREVENT FOREST FIRES



MARYLAND

DEPARTMENT OF FORESTRY

FOREST FIRE SIGNS, 1927